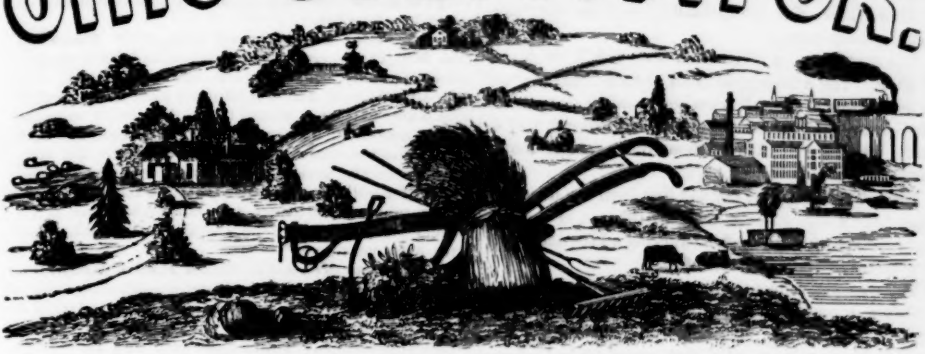
OHIO CULTIVATOR.



Devoted to Agriculture, Horticulture and Domestic Economy.

Published on the 1st and 15th of each month.----M. B. BATEHAM, Editor and Proprietor.

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TERMS.

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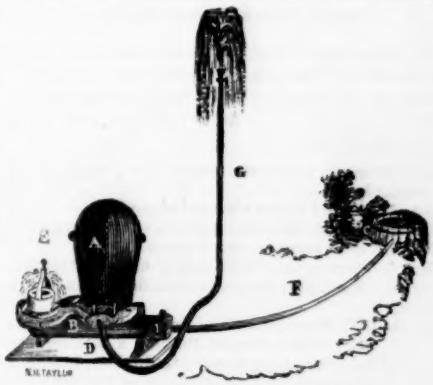
Advertisements Suited to the character of this paper, will be inserted at the rate of 6 cents per line for the first, and 3 cents per line for each subsequent insertion.



The Hydraulic Ram---Its Cost, &c.

We frequently receive letters of inquiry in regard to the cost &c., of the Hydraulic Ram, from persons we presume who have not read our paper of the past two years. Those of our friends who ask for explanations as to the philosophy or mode of operation of these very useful and beautiful machines, we must refer to several articles on the subject in our volume for 1849, or to page 7 of the vol. for 1850, as we cannot occupy space with the repetition of subjects already fully discussed.

In regard to the persons and places where the machines can at present be had in this State we are not very well informed, though we believe there are [or recently were] several agents or manufacturers engaged in the business. There are several different kinds or models of the rams, some of them patented, others not—none of the patents are of much importance, as they only affect the particular form of the valve. Gatchel's patent has been sold quite extensively throughout the State, by means of travelling agents. Some of them, we learn, give perfect satisfaction, while others, owing to want of care or skill in the persons who put them up, do not work satisfactorily. We have not heard of the whereabouts of any of these agents for several

months past. Several of the rams are on hand at our office, for sale, and we will attend to putting them up, if desired, for a fair compensation, and warrant them to give satisfaction.

The cost of a ram of medium size, is $25, exclusive of pipe. The driving pipe costs about $6, and the cost of small pipe is about 7 cents per pound or foot; unless the quantity required should be a thousand feet or more, when a reduction of about one cent per foot is made.

Thus if the spring is, say 250 feet from the house, or place where the water is desired, the cost of the ram and pipe would be about $50; varying a little according to expense of transportation, &c.

The essential requisites for using these machines are, a spring, or constant stream of water sufficient to fill a one inch or 1¼ inch pipe, with a fall or descent of two feet or more, say within the distance of 50 feet of the spring.

Persons residing near, or who may visit this city and desire to witness the operation of the water ram will find one at the residence of Mr. Wm. Stewart, two miles south of town, near the starch factory.

Experiments in Butter Making.

The following valuable experiments are from an Essay on Butter Making, by Professor Traill, of Scotland, published, (we believe) by the Highland and Agricultural Society. We copy from The Plow, the Loom, and the Anvil, for May.

Experiments, *to show the comparative quantity of butter yielded by*

No. 1. Sweet cream churned alone.
No. 2. Sweet milk and its cream churned together.
No. 3. Sour cream churned alone.
No. 4. Sour milk and its cream churned together.
No. 5. Scalded cream, or Devonshire cream, churned alone.

On the 24th May, the milk of four cows was drawn into the same vessel, passed through a strainer, and then divided into five portions of six English pints each, which were placed in similar basins of earthenware in a milk house, the temperature of which ranged from 55 to 60 deg. Fahrenheit.

Monday, 25th. — The temperature of the air was very hot, 76 deg.; but that of the milk house, by constant evaporation of water, was kept about 60 deg.

Tuesday, 26th. — Thirty-nine hours after the milk had been drawn from the cows, it was removed from below the cream of No. 1 and No. 3, by a siphon; and we immediately began to churn the cream of No. 1, and the milk and cream of No. 2, in glass vessels.

No. 1. *Sweet Cream churned alone.* — Having previously found that the addition of a small quantity of cold water to thick cream facilitated the separation of the butter, half a pint of water was added to the cream, and it was found that the temperature of the mixture at the commencement of the churning was 62 deg. In fifteen minutes, butter appeared in grains; the churning was continued for twelve minutes longer, *i. e.*, twenty-seven minutes in all, when the temperature of the whole had risen to 70 deg. The butter was now collected into one mass, but from the warmth of the weather, was very soft. It was, therefore, put into cold water, and placed in the milk house until the morrow, when it was worked and washed in the usual way, and weighed 1386 grains. It was of a good color, and perfectly well flavored.

No. 2. *Sweet Milk and its Cream churned together.* — The mixture of sweet milk and cream was churned at the same time; but, though cold water was here added, after one and a half hour's churning, no butter was to be seen. The churning was continued for as long (in all for three hours,) but without our obtaining a particle of butter.

No. 3. *Sour Cream churned alone.* — On *Thursday, 28th May*, the cream of No. 3, which had been separated on Tuesday, and placed in the milk house, was now slightly acid, and was churned after half a pint of cold water had been added to it. In twelve minutes butter appeared; and in eight minutes more, it had united into one mass. During the churning, the temperature of the cream had risen from 54 to 63 deg. The butter milk was very poor, fit only for pigs. The butter, when well washed, and worked to separate the watery part, weighed 1756.5 grains. The color and taste were very good.*

No. 4. *Sour Milk and its Cream churned together.* — On the same day, *28th May*, the milk and cream which had become acid were churned together, and half a pint of cold water was added. It was fully fifty-seven minutes before any butter appeared; and before the churning seemed to be completed, one hour and fifty minutes had elapsed. This shows that much more time is required to churn milk and cream together, than to obtain the butter from cream alone. The butter was, in this instance, diffused in small grains, and when washed and worked as long as any color was communicated to the water, it weighed 1968 grains. Its color was rather paler than the last, but its flavor was good.†

No. 5. *Clouted Cream churned alone.* — On *Tuesday, the 26th* the milk and cream of No. 5 were placed in a vessel of warm water, until the temperature of the milk rose to 156 deg. In these experiments on scalded cream, we had the assistance of a Devonshire dairy-maid to superintend this part of the process. She generally placed the vessel containing the milk among the embers of a low fire: but we preferred water as the heating medium. She judged of the due degree of heat merely by dipping her finger in the milk, and the wrinkling of its surface; and we found that the heat considered by her sufficient, generally ranged from 135 to 156 deg., and was occasionally as high as 160 or 162 deg. Fahrenheit. The milk was drawn from below the cream by a siphon; and the latter was placed in the milk house, until the following day, before it was churned. It was churned on Wednesday, the 27th. The milk of this portion was very poor, had a scalded taste, and would have been unsalable.

I may here state, that by churning the milk of No. 1 and of No. 3, we could obtain a few more grains of butter, on some occasions; but we never could obtain the smallest quantity of butter from the milk of No. 5 — so completely does the scalding process separate the butyraceous matter from the milk. The butter of No. 5 when well worked and washed, weighed 1998 grains. It had a rich yellow color, tasted agreeably, and was quite free from the peculiar scalded flavor of the milk.

Series 3. — This series, a repetition of the preceding experiments on the milk of four other cows, was commenced on *Thursday, the 25th of June*, or a month after the last series. As before, the whole milk was mixed, strained, and divided into five equal portions, of six pints each, which were treated as the last.

No. 1. *Sweet Cream churned alone.* — On *the 26th*, or in twenty-four hours after the milking, the milk of No. 1 was drawn off by the siphon. The temperature of this portion, at the commencement, was 62 deg.; and when the churning was finished, had only attained to 65 deg. The churning required forty-five minutes.

* The buttermilk from cream alone was poor and thin, in this and in all our experiments, whether water had been added to the churn or not.

† The buttermilk from No. 4—that is, from churning milk and cream together, when slightly acid, is a bland, agreeable fluid, containing much albumen or caseine. It finds a ready market in towns, and is much used in Lancashire as an article of diet. It is therefore a valuable product, which ought to be considered in an economical point of view.

Water had been added as before, and the butter was obtained in grains like peas. When well worked and washed, it weighed 1137 grains. Its color was good and its flavor excellent.

No. 2. *Sweet Milk and its Cream churned together.* — The sweet milk and its cream churned together afforded no butter.

No. 3. *Sour Cream churned alone.* — On *the 29th of June*, the cream, which had become sour, was separated by the siphon and churned. The temperature at the commencement was 58 deg. — and at the end, it was 65 deg. The butter was fully formed in forty minutes, and united into one mass. Well worked and washed, it weighed 1247 grains. Its taste was good, as was its color.

No. 4. *Sour Milk and its Cream churned together.* — At the same time, the sour milk and cream were churned, with the same precautions as before. The churning occupied two hours; when the temperature had risen from 58 deg to 68, or nearly 69 deg. When worked and washed, the butter weighed 1447 grains. The qualities equalled that of No. 3.

No. 5. *Clouted Cream churned alone.* — The cream of this portion was scalded on Friday, *the 26th of June*, by being heated to 168 deg., which temperature it attained in one hour, the usual time required for this operation. On Saturday, the 27th, it was churned in forty-five minutes; during which process the temperature of the cream rose from 58 deg. to 64 deg. When well washed and worked, it weighed 1591 grains. The butter in the mouth had a granular feel, which we attributed to the heat rising, by accident, too high: by which an unusual portion of caseine appeared to be separated with the cream. The butter had, however, no peculiar flavor from the process, although the milk would have been unsalable, from a strong taste of *scalding*.

The general result of these experiments, confirmed by many similar trials, is, that the largest quantity of butter is produced from the scalded, or Devonshire cream; the next in quantity from the method of churning the milk and cream together, when they have become slightly acid: the third in quantity is afforded by cream kept till it is slightly sour; the smallest quantity is obtained from the sweet cream. We were unable to obtain butter from churning sweet milk and cream together; and in several other series attempted it no more.

In one series of experiments we used as much as 11½ English pints of milk in each experiment; but we then had to churn in vessels of tinned iron; and we did not find the results so uniform as when operating on smaller quantities in glass vessels.

Series 4. — This series was intended to decide on the qualities of the butter obtained by the four processes above detailed, as to keeping fresh. These experiments were made, as those of the next series, on the butter obtained in most of our experiments. No. 1 always remained, when exposed freely to the air, longer without any rancid taste than any of the other kinds of butter. No. 3 and No. 4 were nearly on an equality in this respect; if there was any difference it was in favor of No. 3. No. 5 became rancid more quickly than No. 3 or No. 4.

Series 5. — Equal quantities of butter obtained by the four processes were salted with equal quantities of salt, then spread thinly on glass plates, and exposed to the air in a dry room. They were inspected from time to time, and it was ascertained that the taint of rancidity always appeared in the following order, commencing with that which showed it first:

In No. 5, or butter from scalded cream.
No. 4, " " a mixture of sour milk and its cream.
No. 3, " " sour cream.
No. 1, " " sweet cream.

The cause of this difference in their power of resisting decay was believed to depend on the varying proportions of caseine, or curdy matter, in each. To determine this point, another series of experiments was undertaken.

Series 6. — Two hundred grains of each kind of butter were kept liquified, by a moderate heat, in glass capsules; the oily matter was taken up by bibulous paper, successively applied, as long as any oily stain was perceptible; the watery liquid which remained below the oily matter was evaporated, and the solid residue, after being well washed, squeezed between the folds of blotting paper, and dried, was carefully weighed. Unfortunately I have been unable to recover the details of this series of experiments; but the following are the general results, which decidedly show that the presence of the greater quantity of caseine in butter coincides with its greater tendency to become rancid. The four kinds of butter afforded caseine in the following order, commencing with that which yielded the most:—

No. 5, butter from scalded cream.
No. 4, " " acid milk and its cream.
No. 3, " " acid cream.
No. 1, " " sweet cream.

Experiments had been made in October, 1806, which proved that overchurning — that is, continuing the process after the full separation of the butter — was very injurious to the quality of the butter, although it increased its weight; and these, though made before the experiments detailed above, shall now be indicated, as

Series 7. — The cream of six English pints of milk was separated by a siphon, and churned in a glass vessel. The butter was butter was formed in about half an hour, but the churning was continued for half an hour longer, when the butter had lost its fine, yellowish, waxy appearance,, and had became pale and soft, while very little liquid remained in the churn. This butter was so soft that it could not be washed and worked, until it had remained some hours in cold water, it was pale, still rather soft, and when weighed, =2566 grains. That this was beyond the due quantity of good butter, from such a quantity of cream, was apparent when the comparative experiments on the same quantities of the same milk, but only churned till the butter was well formed, gave the following results:—

No. 1, sweet cream overchurned, yielded = 2566 grains;
No. 3, acid cream duly churned, " = 2187.5 "
No. 4, acid milk and its cream do. " = 2397.5 "
No. 5, scalded cream do. " = 2671 "

The butter of No. 1 tasted insipid, never became firm, and soon turned rancid. It was found to yield a very unusual quantity of both caseine and watery fluid, which could only be separated by melting the butter.

Similar experiments were repeatedly made, the results of which showed that overchurning is very injurious to the quality of the butter; but it adds considerably to the weight of the article; and it appears to be frexuently practiced in Lancashire, especially in manufacturing *fresh* butter for *immediate sale*.

It is a common opinion in Lancashire that considerably more butter is obtained by adding *hot water* to the churn than by using cold water. We had invariably found that the addition of a small quantity of cold water, especially in summer, greatly facilitated the separation of the butter, and rendered it more easily washed. But a dairyman informed us that the same quantity of cream, which will yield 14 pounds of butter with *cold water*, will afford 15 pounds, or even 15½ lbs., with an equal addition of hot water.. This formed the subject of

Series 8 — On *the 15th of November*, we took, from the mixed milk of four cows, two portions of six English pints each, and set them aside in a milk house, the temperature of which ranged from 59 deg. to 52 deg. On *the 17th November*, the cream was removed from each by the siphon, and churned at the same time, in circumstances as nearly equal as possible, except in the addi-

tion of water. The temperature of the cream, at the commencement of the churning, was 55 deg.

No. 1. To this portion an ounce and a half of water at temperature 45 deg., was added. After churning for eighteen minutes, the butter began to appear; two ounces more of water, at 45 deg., were added, and the churning was carried on for five minutes more. The butter was then worked and washed.

No. 2. To this portion of cream one ounce and a half of water, at 105 deg., was added; butter began to appear after churning for thirteen minutes, when two ounces more of water at 105 deg., were added, and the churning was continued for five minutes more, or eighteen minutes in all. The temperature of the contents of the churn was 71 deg. This butter was very soft, and therefore cold water was added, in which it was worked and washed.

Unfortunately, the note of the weight of the butter in this series has been lost; but I find it stated that the butter of No 2 was rather more bulky, and weighed a little more than that of No. I; that it neither was so firm nor of so rich a color as the butter of No. 1; and that on pressing it next day, some watery fluid escaped from it. From this we inferred that the quality of the butter was deteriorated by the addition of hot water; and that the quantity obtained, by this practice, of marketable butter, is not so great as is commonly alleged in Lancashire, although the time of churning is thus somewhat abridged.

The principal results of the experiments above detailed, are —

1. That the addition of some cold water during the churning, facilitates the process, or the separation of the butter, especially when the cream is thick and the weather hot.

2. That cream alone is more easily churned than a mixture of cream and milk.

3. That butter produced from sweet cream has the finest flavor, when fresh, and appears to keep longest without acquiring rancidity; but that the butter milk so obtained, is poor, and small in quantity.

4. That scalding of the cream, according to the Devonshire method, yields the largest quantity of butter; which, if intended for immediate use, is agreeable to the palate and readily salable; but if intended to be salted, it is most liable to acquire, by keeping, a rancid flavor. The process of scalding is troublesome; and the milk, after the removal of the cream, is poor, and often would be unsaleable from the taste it has acquired from the heating.

5. That churning the milk and cream together, after they have become slightly acid, seems to be the most economical process on the whole; because it yields a large quantity of excellent butter and the buttermilk is of a good quality — a point of some importance when buttermilk is largely used as an article of diet, as it is in Lancashire.

6. That the keeping of butter in a sound state appears to depend on its being obtained as free from uncombined albumen, or caseine, and water, as it can be, by means of washing and working the butter when taken from the churn.

Sowing Clover among Corn.

On the 6th of last July, we finished sowing a field of corn with clover. We sowed immediately after the plow, the last working, giving the seed a chance, while the ground was fresh and loose.

It took well, stood a hard fall drouth, and came on more vigorous this year, than that sown on small grain the spring previous.

The soil is various, including loam, clay, and gravel, with a ridge so poor that it would scarcely produce a nubbin of corn to the hill. We sowed the ridge, because it was easier to sow than to skip it, thinking it scarcely possible that clover could live on it, but we are happily disappointed to see a tolerable growth of clover on it at present.

Two other experiments came under our observation; one in this and the other in Butler county.

One sowed after the plow the 30th of July, and failed, except a strip next the woods, where it was protected by the shade.

The other sowed after the cultivator, on a very dry soil, the latter part of August, and failed entirely.

These we mention as a caution to others to sow in season.

We were informed by an experienced farmer of Indiana, that latterly he sowed on corn almost entirely, and thought it much preferable to the old way of sowing in spring grain. He "prefers to sow immediately after the plow, in his early corn, about the last of June or first of July; then it will get the harvest rains," soon sprout, and send forth its tap root, and get a hold sufficiently deep to enable it to bid defiance to any ordinary drouth; whereas, if sowed late, as in the above cases, it scarce springs into life till the drouth comes and parches it to death.

The advantages of this practice will be derived by corn farmers — grass growers don't need it.

It doubles the chances of getting a field of clover in any given year.

It offers a profitable and practicable mode of keeping a corn field, not suited to the production of small grain, in a high state of fertility. Z.

Hamilton Co. O., June 16, 1850.

A Corn Harrow or Cultivator.

MR. BATEHAM: I have been taking the Ohio Cultivator for some time, and am much pleased with it. I think every farmer in Ohio should read it, or some other agricultural paper; for this old fashioned way of moping along and making no improvement from one generation to another, I for one, am tired of; and I want to see the whole farming community inspired with the spirit of improvement.

I have for two or three years past been making experiments for constructing an implement for working corn the first time, that would perform the work better and faster than anything I have seen in use; and I think I have at length succeeded. It is certainly the best thing I have ever seen or tried for the purpose. I call it the *Shovel-harrow*. It is constructed as follows:

Make a light three square harrow, the side-pieces eight feet long, and the back cross-piece five and a half feet, with a centre-piece length wise in the middle, mortised into the back-piece, of tough three by four inch timber, well seasoned and firmly put together.— At the front of the harrow I mortise into the centre-piece an upright piece, say ten inches high, six by three inches, with an open groove or mortise at the top, say six inches deep, so as to admit the link of a chain to go down in it, and bore several holes through the sides for a small pin. Then take a chain and fasten it to the centre-piece about the centre of the harrow, (so as to have the draught from the centre,) and pass it over the upright in front, with one link in the mortise, where it is kept in position by a pin, so as to regulate the depth of the harrow. This arrangement also prevents it from shaking sideways, as it would if the chain was simply attached to a ring or clevis in front. Next I put a piece three by four inches, across about the middle of the harrow, bolted fast on the top, also two blocks six inches wide and six inches long, bolted fast on the top of the cross piece behind, say twenty inches apart; then I put two short beams lengthwise the harrow from these blocks to the cross-piece in the middle, and bolt them firmly, in which are sheaths for two small shovel plows, say about the size used for a double shovel. Then I put a common harrow tooth on each side of both shovels into the cross-piece behind, so as to harrow down the earth after being plowed; I also put ten or twelve teeth in the forward parts of the harrow. The shovels are set to run one inch deeper than the harrow teeth. A pair of handles now complete the work.

This implement is of course designed to stride the rows of corn, and is worked with two horses. It harrows the ground, then plows it and harrows it level again. I can do more work with it and do it better than with any other implement that I have tried. The timbers should all be as light as possible, or the harrow will be too heavy. There may be room for further improvements on this harrow, but I am so well pleased with it as it is, that I feel quite satisfied at present. If you, Mr. Editor, can understand this description, and think it may be useful to others, you can give it a place in your columns.

Wheat in this part looks well, notwithstanding the drought; corn and oats look very bad now, but we had a fine shower yesterday, which will no doubt soon cause improvement.

Respectfully yours,

JAS. M. TULLIS.

Troy, Miami co., O., June 14, 1850.

A Practical Hint---Binding Oats, &c.

ED. O. CULTIVATOR: It is well known to farmers, that oats, after being cut, and lying in the swath till rain falls on them for the purpose of making them thrash easy, are exceedingly difficult to bind on account of the brittleness of the straw; in consequence of which, farmers are compelled to bind them early in the morning, before the dew evaporates, or late in the evening when it commences falling.

Well, to avoid this difficulty, proceed thus: after the dew is off and the straw of which the band is made breaks in tying, quit binding and rake the oats in bunches ready for binding, pressing them firmly on the stubble that they may lay close on the ground, letting them lay about two hours; then go to binding, first turn your bunches up side down, and then take your band from the upper side of your bunch, and you will find it good and tough, when the remainder of the bunch, or so much of it as did not touch the ground, will be quite brittle.

The philosophy of the matter is this: there is going on at all hours of the day a constant evaporation of moisture from the surface of the earth, particularly so when the sun is shining.

The pressing down of the bunch, mashes down the stubble, bringing it in contact with the ground and intercepts the moisture that would otherwise escape, and in its upward tendency, is absorbed by the straw next the ground, imparting to it the desired toughness.

Xenia, June 20th, 1850. J. C. G.

Ethics of Agriculture.

ED. O. CULT.: In relation to the economies of agriculture, there is much written and published, and very properly. The modes of culture adapted to secure the largest returns, the most profitable stock, seeds, fruits, labor-saving machinery, etc., etc., and all that relates to present or prospective pecuniary benefit to the individual, receives with propriety, a large share of attention. It occurs to me, that added to these, writers upon subjects may inculcate with advantage, what, for want of a better term, I will call the *Ethics of Agriculture*.

It is an axiom in morals, admitted by all to have a control more or less comprehensive, as the moral sense of the individual who is considering it is less or more developed, that we have no right to injure our neighbors to benefit ourselves. Now as the operations of the tiller of the soil must, in their consequences, necessarily extend to posterity, this principle, by all intelligent minds, will be perceived to possess its influence in determining our duties in relation to those who come after, as well as those who are now our neighbors. Natural causes render a constantly increasing population of the earth inevitable. Hence, as a larger number, hereafter, must seek a supply for their wants from the soil, than now draws sustenance therefrom, it follows that it is an imperative duty upon those who now cultivate it, to increase, rather than depreciate its sustaining powers. It is easy to perceive we have no more right to injure posterity, by squandering our common inheritance, than we have to harm our neighbor who exists at the same time with us. Indeed, rightly considered, a greater responsibility, if possible, devolves upon us to act justly towards those who are to succeed us, than towards our cotemporaries, inasmuch as those who come after us will come into existence through our volition, and not their own. The responsibility for their existence will rest entirely upon those who now live, and thus there seems to be an enhancement of our duty towards them.

The old command—"children, honor and obey your parents"—is very well in its way, when the conduct of the parent shall have been such as to merit honor and obedience. But evidently this involves an inversion of the natural responsibilities of the parties. The relation of parent and child being voluntarily assumed by the one, and involuntarily by the other, seems to determine, without the possibility of mistake, where the actual accountability rests. Connecting this view of the case with the one before given of the naturally increasing population of the country, and I submit, it is demonstrated that it is the duty of all who till the soil, in determining upon their operations, to consider the interests of posterity conjointly with their own. In other words, the general system of each should be such as to increase continually the earth's productiveness in all of those supplies to human necessity which are subjectto human control. And in publications devoted to the improvement of agriculture, this view should have persevering and prominent development, since appeal to individual consciousness is the only means of effecting true reform. It was my purpose to have specified various common departures from the observance of this duty, but as it will extend too much this communication, I will postpone it till it be known whether this much shall prove worthy of acceptance.

A. BROOKE.

Oakland, O., 1850.

REMARKS.—We should be pleased to receive and publish a few brief articles of the kind alluded to above, if the writer will favor us in that way.—ED.

Use of Clover --- Time of Sowing.

MR. BATEHAM: The great considerat on of the farmer should be, to keep up and increase the strength and fertility of his land. If this is properly attended to, it will constitute a deposite upon which he can freely draw without danger of having his drafts protested. But this grand object is lost sight of by a large portion of our farmers, and consequently each succeeding crop taken from the land, leaves it worth less to the owner, with the certainty of yielding a more scanty return to the tiller.

Where the cultivation of grain is the principal object of the farmer, without a corresponding amount of stock being kept, to produce manure sufficient to keep up the soil, it becomes indispensably necessary to clover largely, and turn down a heavy coat of vegetable matter. As a fertilizer, no crop is better adapted to a variety of soils, than clover, or a mixture of clover and timothy. Land not intended for the plow for a season, should invariably be well set with clover. I have never known a farm run down, that was regularly seeded in clover.

In regard to the best time for sowing clover, there is some diversity of opinion, and different results in practice. Much depends upon the season, and a time that may succeed best in one season, may utterly fail in another. I have practiced fall sowing with the most complete success; and in order to guard against contingencies, would prefer sowing with a fall crop in September, or as late as the fifth of October, but not later, as it requires a warm sun in order to grow, and become

well set to protect it from the winter. There is no danger of its being hoven up when small; that never occurs until the roots become large. Fall sowing has this advantage, it gives the clover a better start in the spring before becoming shaded by the growing crop, and if it should fail, the ground can be re-sown in the spring.

For spring sowing I consider the two last weeks in March the best time. If sown too early, it may sprout immediately, and be killed in the cold weather that follows; if sown late, it is frequently killed by drouth. The best signs to sow in, is when the ground is hoven up, so as to allow the seed to settle in the openings. I have generally found from seven to eight pounds of seed to the acre sufficient.

Intimately connected with clover, is the use of plaster, upon which I may give my experience and observations hereafter. D. Yant.

Bolivar, O., 1850.

Ashtabula County—Weather, Crops, &c.

Friend Bateham; Since I wrote you last, we have been favored with several fine showers, which have made the face of nature assume a more favorable appearance. The heart of the husbandman has been cheered; and his fields which a few days since, were parched with drouth now give promise of yielding a fair compensation for the labor bestowed. Grass, which at the beginning of the month gave indications of a total failure, now bids fair to be a full middling crop, except upon such meadows as have been in grass for a long series of years. Corn is looking quite well, although on some fields it failed to come up as well as usual. The last of May was a very favorable time for the depredations of the worm, and I hear that some fields are seriously injured by the insect. In the main, however, I think that our corn looks as well here as is usual at this season of the year.

Oats are looking very well, and give promise now of being a full average crop. Wheat looks well, but I have some fears expressed as to the effect the drouth may have had upon it. The worst enemy to wheat crops in this section, in former years has been *rust*, and the crop is not yet sufficiently advanced for an attack to be made upon it by this foe. We hardly dare speak positively of the crop till we have it well secured.

In anticipation of a failure of the hay crop, considerable corn has been sown broad cast as a substitute for hay for stock the coming winter. Previous to this, there has been very little fodder produced in this way, in this county. From the facts that I have been able to gather in regard to the value of this feed for stock, and especially for milch cows, I am of the opinion that this would be found a very profitable crop for dairymen to grow to feed their cows in the last of the season, when grass fails in our pastures under ordinary circumstances.

Those who have experimented with this as feed for milch cows, state that after feeding for several days, they found (by weight) the quantity of milk increased ten per cent. If these experiments are reliable, this certainly would be found a profitable crop for dairymen.

Some of our farmers are going to make trial of rutabaga and other turnips as a substitute for hay in wintering cattle. This is a crop not generally produced here to any great extent, but has usually succeeded well as far as cultivated. Fields of half an acre, without extra culture, have been known to produce 400 bushels of the Russia turnip, or 800 bushels to the acre. It is estimated by those who are curious in such matters, that the rutabaga, as compared with hay, is greatly in advance in the yield per acre. Two tons of hay per acre is reckoned a good crop. One hundred pounds of hay are reckoned equal to 300 lbs rutabaga; or one ton of hay is equal to 100 bushels of rutabaga, reckoning 60 lbs to the bushel. This estimate would make 800 bushels of rutabaga equal to 8 tons of hay as feed for stock. Estimating the value of each per ton at $5,00 and we shall have a balance of $30,00 in favor of the rutabaga, leaving out of the account the extra labor of raising, harvesting and feeding.

The drouth of 1845 taught the farmers here not to place their sole reliance on hay, and since then they have raised more corn and oats than previously and find it to be to their advantage. Perhaps the drouth of this season will effect another desirable change in our system of farming that in the end may result in greater gains. Yours, truly, N. E. Fench.

Ashtabula county O., June 20th, 1850.

Letter from Erie County.

Mr. Bateham: Did you ever before see such a drought? is the daily inquiry from many mouths: Well, we did, just five years ago, and a little more so; but this is very severe, and has affected us about as you describe its effects with you.

On Saturday and Sunday last, we had two or three light showers perhaps to the amount of one or two inches of water. It is needless to say they were thankfully received, having had none for thirty days previously. It is now, to appearance, about as dry as ever, except grass and corn is somewhat rev ved, Much corn will not come up in time to produce a crop.

Wheat is shortened in the straw, and on very dry sandy and wet clayey land is injured some, but as a whole still looks promising.

Fruit—apples and cherries, promise well, are well set, smooth and fair. Peaches are promising from the shore of the lake back three or four miles. South of that I think they are mostly killed, except in a few favored situations. It was thought the frost had not destroyed them, till lately they appear to be generally dropping off. Yours, &c., B. Summers.

Erie Co., June 13, 1850.

P. S. Rain ho! Since writing the above a change has come o'er the land. Last night and to-day we have had—not hand breadth showers, which water one neighborhood and leave the rest untouched, but such a rain "as is a rain;" general, genial, warm and copious; such as makes the farmers' eye twinkle with pleasure and the parched vegetation almost shout for joy. I think it is not too late to get tolerable crops of hay and oats after all. All praise to him

"Who makes the grassy mountains frown
And corn in valleys grow."

June 15, B. S.

Highland County.

Mr. Bateham: From May 15th, till June 8th, we had scarcely a drop of rain but frequent frosts and cool winds. On the 9th we had a fine shower, since which time the weather has been warm with occasional light showers relieving in some measure the drouth, though the ground has not been thoroughly wet.

Crops. Hay and oats will be very light. Fruit plentiful—corn generally very backward. Between drouth, frost, pigeons, crows, blackbirds, squirrels, moles and worms, we have had a very severe scuffle to secure a fair stand of stalks. Some of us, however, have succeeded pretty well, and some bottom fields are growing finely. The advantages of deep plowing, and careful and judicious culture, were never, perhaps, more apparent than at present in the corn crop.

Wheat promises well, early varieties are "whitening for the harvest" and no appearance of rust. Eight or ten days more of favorable ripening weather will insure a good crop, Yours, Respectfully,

S. Linn, Jr.

Another Letter from Highland county says, "The drouth has somewhat injured the wheat crop, yet we are likely to have a fair yield. Some fields are beginning to ripen. By the way, a neighbor of mine has a

few rods of a peculiar kind of wheat in one of his fields, for which he has no name. It was selected last year from a field, the seed of which came from Philadelphia. It has a large head, with long beards, the straw very tall and strong, but not very large, with broad leaves of a bright green color. It was entirely free from rust last year, while other kinds around it were badly rusted. What kind is it?

Corn is very uneven — many fields just now coming up, though planted more than a month since. That planted early is growing finely since the rains.

Oats may yet be a fair crop, though at present quite backward. Grass will not be half a crop. This is a sad loss to us farmers."

Morgan, Athens, &c.

Mr. Bateham: As I have been travelling somewhat the last month or two, I will give you a few of my observations. The crops in this county are better than we expected two or three weeks ago; before the last rain which was about a week ago, the oat fields were *bare;* since then they have come on finely. The early sown wheat this year is much the best. I have been through parts of this county (Morgan,) Athens, Vinton, Hocking, Perry, Muskingum, Guernsey Monroe and Washington, and find this universally to be the case; some of the late wheat has headed out when about 12 or 18 inches high, and the heads very short. Grass will be light owing to the severe drouth which we have had in this county. There will be an abundance of all kinds of fruit, though it has been rather dry for *Strawberries.* One thing struck me very forcibly in Monroe county which was the great propensity the farmers especially those in moderate circumstances, have for raising tobacco. They are this year almost in distress. Grain is very scarce, and some of them are without any thing to buy with. It seems to me it would pay better *scarce years,* at any rate to raise grain enough for family use. Monroe is quite rough, especially through Enoch and Elk townships, though the land is strong and would produce good crops.

Yours, &c., S. J. Rice.

McConnelsville, June 23, 1850.

Washington County.

Mr. Bateham: The wheat crop is so far advanced that the earliest fields are safe from the *rust;* a few fields will be cut this week; the crop will be over an average; the later fields may yet be injured as the rust has commenced on it, though very slightly. We had a very heavy rain on the 15th inst. Corn looks middling well;—late pastured meadows very light, that which was not pastured is pretty good. Fruits of all kinds are very plentiful. This relates to that section of the State where Washington, Morgan, and Athens counties corner.. Yours, Respectfully, Levi Heald.

Bartletts, June 24, 1850

Another Letter, dated Newport, June 22d, says: "The prospects for the farmers in this part of old Washington are quite cheering since the rains. Wheat is nearly fit to cut and will be a fair yield and excellent quality, though many fields contain an unusual amount of chess. Potatoes are a very important crop with us, and look well. Corn is likely to be a fair crop, notwithstanding the hard struggle it has had. Hay is a short crop. Peaches and apples promise abundance."

Morgan County.—The season was very wet here, until the 16th of May. On that day and the two succeeding ones, most of the corn in this county was planted. That which was planted in freshly worked mellow ground, came up well, and is doing well—that which was planted in dry ground did not come up for more than four weeks—it then came up very regularly, and is doing well. This crop however, must be below an average. Our wheat crop is generally good—much of it very good, and nearly ready for the sickle. No midge or rust, and no prospect of any. Timothy better than I ever saw in this county. Oats short, but now doing well. Potatoes and Sweet Potatoes doing well. All the fruit which we grow, abundant.

McConnelsville, June 24th. S. A. B.

Clermont County.

Dear Bateham: The wheat crop of this county promises better this season than any other. This year's crop will be over an average yield in this county, and the quality will be very good. Some of the earlier varieties commonly known as the Alabama and Mediteranean, are now ready for harvesting and promise an abundant yield. The *Oat* crop must be almost a failure, owing to the continued drouth. The *Potatoe* crop looks very well but the season for them to mature being yet to come we cannot tell much about that crop yet. *Grass* will be very light and many meadows will not be worth cutting. The *Corn* is very small but may do well yet, if the season is good.

We have had no general rains in this county this summer—nothing but small showers sometimes in one region and sometimes in another, so that we have had a general drouth. *Fruit* of all kinds promises an abundant crop. Respectfully yours, Cha's. Robb.

Agricutural Fair.—The Board of Directors of the Clermont county Agricultural Society met at Slade's tavern, according to previous adjournment, to make arrangements for the annual fair.

It was resolved that the Annual Exhibition be held at Mr. Slade's, on Ulrey's Run, on the 27th and 28th of September, 1850.

Greene County.

Mr. Bateham: A day or two since, business led me to take a trip to Springfield, going and returning by different routes, so as to observe the crops and fruit.

I observed no peaches in any part of Clark county through which I passed. Apples, and cherries, and blue plums in abundance. Wild fruit also plenty—such as cherries, plums, berries, &c.

Oats, thin on the ground, knee high to a duck, and shooting; if farmers get bands to tie them when cut, they must cut under ground Wheat, on a few farms first rate, but on a majority it was tuffy tuffy whether the wheat or cheat had the victory in a long pull — the wheat was well headed, but the cheat better. Corn, in few instances looked fair considering the drouth, and in good order, but by far the most looked every way but right — clods by the acre, and not worked. Grass looked fair. On one farm I saw cheat growing thick amongst Oats. *Query* — Did the Oats turn to cheat?

In Greene county, plenty of peaches in those parts I went through. Wheat good — meet with a transmutationist occasionally; proof, see plenty of cheat on his farm, for what a man believes he is very apt to practice. Corn about the same as in Clark. Fruits the same, peaches excepted.—Oats, do.—Grass, do. Fall barley, nearly ripe for the sickle. In both Clark and Greene nine tenths of wheat Mediteranean variety.

Farmers think we will have no rust this year. My Tuscany wheat is very fine — all who see it are captivated with its appearance; have grown it two years.

Potatoes look moderately well, but have suffered much from the drouth.

J. C. G.

Xenia, June 20th, 1850.

P. S. The Curculio have punctured all the fine plums. The Cicada* are singing in the forest, though as yet not very numerous.

* We presume this is the annual Cicada, (Locust,) not the seventeen-year species.—Ed.

A covetous man is, as he always fancies, in want.

OHIO CULTIVATOR.

COLUMBUS, O., JULY 1, 1850.

Correspondents have our thanks for their numerous and timely letters. Several communications are deferred for our next number, and a number of letters of inquiry, &c., have been delayed by our absence the past ten days.

The Weather has been very warm for some days past with several fine showers and vegation is now extremely rapid.

The Wheat Harvest has commenced in this part of the state. The grain is of very fine quality and the yield full an average one.

For an account of the crops in different parts of the country we refer our remarks and numerous letters in another part of this number We offer no apology for devoting so much space to these letters, for we are convinced that they will be read with interest at this time by almost every farmer.

The Arrangements for the Ohio State Fair are progressing favorably, and on a grand scale, at Cincinnati, under the supervision of Mr. D. Lapham, member of the State Board of Agriculture. If any of our readers have not received a copy of the list of premiums and judges &c., we will furnish them the same on application. If any persons have duplicate copies sent them, they are requested to distribute them to those who will be likely to attend the Fair.

In our late travels we have been gratified to learn that a very general disposition is felt among the best farmers and mechanics, to attend the State Fair, and also to take something along for exhibition.

County Fairs.—Officers of county agricultural societies will confer a favor, by informing us when and where their fair is to be held the coming fall. Some have already done this.

Those Cherries, sent for us from Prof. Carter of Granville, were of fine quality, our clerk says. We did not see them.

Buckwheat should be sown from the 1st to the 15th of this month. The best soil is a sandy loam. Three to four pecks of seed are used per acre. It saved carefully, the straw makes good fodder for sheep.

Turnips may be sown from the middle of July to the middle of August. Choose a time when the ground is in order, and when showers may be expected. New ground, or sod broken up and the surface harrowed mellow, will grow the best turnips. About half a pound of seed is commonly sowed per acre.

Look out for an Impostor!

Wm. McGiven has been engaged for several months past in procuring subscriptions for this paper, without sending names or payment to the publisher, thereby defrauding honest farmers and subjecting us to numerous complaints. If said McGiven has a certificate of agency, it is a forgery, or was obtained by fraud; and we request any of our friends who may meet this scoundrel or hear of his whereabouts, to aid us in putting a stop to his operations, by securing his arrest, or informing us where we can find him; also to retain or destroy his certificate if he exhibits one. He is said to be a young man of good appearance and address, well calculated to deceive. He was recently operating in Fayette county. We have no authorized travelling agents engaged at present. M. B. B.

Bartlett's Double Plow.

This implement we saw at the N. Y. State Fair last year, and we have observed frequent commendations of it in eastern papers. When at Cleveland the other day we found several of these plows at the seed store of Jno. Stair & Son, and Mr J. R. Howard the agent of the patentee for Ohio was also there. He is taking measures to introduce the plow into various parts of the State, and he is quite confident that our farmers will find it of advantage to them. We have not seen it work, but are inclined to think favorably of it, especially on account of the testimonials of a large number of well known eastern agriculturists who have used it.—For sandy and light soils we think it will prove more advantageous than for heavy or clay soils. We shall publish a description of it as soon as we can obtain an engraving. Letters of enquiry can be addressed to J. Stair & Son, or J. R. Howard, Cleveland.

Our Trip North — The Crops, &c.

We have spent ten days, since our last paper, in a hasty tour of observation through a dozen or more counties of the northern half of the State. We took notes of a variety of matters and things by the way, but owing to the large number of letters from correspondents which we found on hand when we returned, we have concluded to defer most of our own notes in order to make room for others, and shall therefore only glance at a few topics of immediate interest at this time.

Our route was first westward through the counties of Madison, Greene, Clark and Champaign, &c., by rail road to Sandusky; thence by steamboat to Cleveland; then a trip by the new rail road into Lorain county and back; and several short rides around Cleveland; next a stage ride through the counties of Summit, Stark, Wayne, Ashland and Knox, to our home in Franklin. We very much regret that our time and the means of conveyance would permit us to call on only a very few of our friends and readers in the counties through which we passed, as it would have afforded us great pleasure to have paid our respects to all our friends along the way, and conversed with them awhile about their farms, homes, and gardens; but this pleasure

must be deferred till our subscription list is about doubled, so that we can afford to hire able assistance to manage the business of the office during our absence. If our friends *will it*, this can be done next year.

The rains and the crops we found were the leading topics of remark and inquiry wherever we went. Plentiful showers had fallen at the north just before we started, but not extending to Franklin, Madison and Greene counties. These and some adjoining parts were not favored in that way until the 20th; one week later than at the north. We found the earth moist in Clark and Champaign counties, and thoroughly wet in all parts farther north. At Cleveland, and east of there, the rain of 14th was very heavy, carrying away fences, bridges, mill dams, &c, in some places.

The wheat crop we found every where more promising than was expected, and the very favorable weather of the past week has caused it to fill up and mature healthily, so that the grain is very plump and fine, and the yield is likely to be full an average one, notwithstanding the lightness of straw occasioned by the drouth. Late fields in some places are likely to be injured a little by rust; and in a few cases we found the heads attacked by the midge-worm or "yellow weevil," but we think the injury from these causes will not be extensive. In Stark and Wayne, the two greatest wheat counties of the State, the crop is very large and fine, and being almost ripe, the appearance of the country is extremely beautiful. The effects are also quite visible in the countenances of the farmers and merchants.

The hay crop generally at the north is very light, but not so deficient as was supposed would be. Timothy and clover meadows in most cases afford a fair crop, if not many years seeded; but old meadows on dry and thin soils are not worth mowing. We noticed a number of fields and patches sown with corn for fodder. We also learned from Mr. Stair, of the Cleveland seed store, that there had been much demand for millet for sowing for a hay crop. By such expedients, and the economy for which our northern farmers are proverbial, we trust they will be enabled to winter their farm stock without serious difficulty.

Oats everywhere have suffered by the drouth, and will inevitably be a short crop, but by no means a failure. Indeed we think it likely with the present fine showery weather that not far below a fair average will be harvested.

Corn is now pushing forward most rapidly, and if the coming two months prove favorable will be a fair crop, though some fields are nearly or quite a failure, owing to drouth preventing the seed from vegatating, and the hardness of the ground preventing replanting in time. In central and southern Ohio the corn crop was never known to fail, or to be very deficient.

Potatoes are also coming on rapidly and bid fair to be a full crop, excepting that some persons were prevented from planting till it was too late to expect them to do well.

Fruit.—Apples are likely to be a fair crop. This fruit set very thick, but owing to insects and other causes (perhaps frosts in May) much of it is dropping from the trees. Some fruit growers assert that the curculio destroys the young apples, as well as the plums; but we have not seen proof of this, and are inclined to think it a mistake, and that the apple worm alone is the cause of the mischef if it is the work of an insect. Peaches are plenty along the lake shore, and in few other localities, especially where sheltered by buildings &c.—Plums set well but are mostly destroyed as usual by the curculio; pears and cherries seem to be as plenty as usual. In the vicinity of Cleveland cherries are very abundant. We never before saw so fine a show of this fruit as we saw at the garden of Dr. J. P. Kirtland, where there are a larger number of choice kinds in full bearing than at any other place we have seen in this country. Many of them are new varieties raised by Dr. K. from seed. We shall speak of them again shortly.

Delaware County.

Mr. Bateham: The drouth that has passed by was probably as severe in Delaware county as in any of the central or southern counties in the State. There was no rain fell after the fourth of May until the 9th of June, making 35 days. The weather was cool, with frequent frost during the entire month of May, consequently our crops all suffered, but now the weather is warm and the earth is thoroughly wet, so that our corn has come up, oats, flax and meadows are growing rapidly, and wheat, which we feared would be injured by the drouth, appears to be excellent, the heads are pretty short, but are rapidly filling, and the straw stands thick on the ground — so that if no evil befalls it hereafter, I look for a good crop. Corn looks better now than it did at the same time of year in '45, and we that year had a good crop. Meadows will be light — so will flax. Oats will be short, but may be well seeded, and consequently yield a crop, of course. We have no early garden vegetables. Apples are plenty, and some cherries, but we shall have no peaches or plums. The curculio killed the one and frost the other.

Of insects, cut worms have been troublesome in some corn fields, and grass hoppers appear in innumerable quantities in our meadows. We fear they will destroy our oats if they remain with us long enough for the grain to ripen. There is some apprehension of mischief from the red weevil in wheat, but as yet I believe that but few are to be seen in the heads, and ten or twelve days will put the early varieties out of their reach. G.

Berkshire, June 20.

Montgomery County.

Mr. Bateham: We had a very wet spring until the fifth of May, when the dry weather set in, and we had no rain to do vegetation any good, until the 9th of June, when we had quite a refreshing shower; but the ground had become so parched, that in a day or two it was gone; the next rain was on the 15th inst., since that time we have had frequent showers.

The wheat is thought now to be out of danger, and the prospect is very flattering for an abundant yield and an excellent article. *Corn*, the prospect is very poor, the yield cannot be more than half as much as last year; it is out of the question for us to have much sound corn, be the season as it may. The failure in the oats and flax must inevitably be unprecedented. There is a large amount of tobacco being put out in this section of country, and the week past has been favorable.

The Osage Orange seed was a perfect failure with me this season, in consequence of the dry weather. Hay is almost out of the question.

Yours respectfully,

James McGrew.

Alexandersville, June 23*d*, 1850.

Clark County.—A letter from North Hampton dated June 25th, says: "The Wheat crop looks very promising indeed in this part of the county. I think I never saw it look better. Corn, oats and grass, are also improving rapidly since the late fine rains, and I think will be fair, though light crops."

J. S. B.

Logan County.—Our wheat crop promises well; except on thin land and late sowed. Corn, oats and hay seem to promise a poor yield. Gardens are almost a failure. Apples promised a full crop but the fruit has fallen off many trees, peaches were mostly killed in the winter, but a few localties have some fruit.

J. P. M.

A Trip West—Crops, &c.

Mr. Bateham: I have taken a wandering trip to the West, and returned a few days since. In passing through Michigan on the Central Railroad but little attracts the eye of the farmer until you reach nearly to Marshall, where you find very good wheat land for some distance. The wheat looked fine, and on inquiry of farmers at the different stations along the road, the general reply was that the wheat looks very well, although at that time suffering from want of rain. So far as I could learn, the prospect for a good crop of wheat in Michigan is very flattering.

Along the line of the Illinois canal, from Chicago to Ottowa, except a few thriving towns, there is but little to interest the farmer. From Ottowa I travelled some two hundred miles north, between the Rock and Fox rivers, to Washington county, Wisconsin. Much the largest portion of the road from Ottowa to the north line of Illinois is prairies. As you approach the north line of the State, the groves of timber are larger, and less prairie. As you advance still north, the country becomes a dense forest, although not like Ohio forest until you get west of Rock river.

The wheat looks well in the timbered country, although suffering much from drouth. Spring wheat was backward, owing to the cold dry spring. From all I could see, and all I could learn from enquiry, I think a farmer with economy and industry, can do as well in Ohio as at the West; the reasons for this conclusion I may give hereafter, if you should think it best to publish this.

In regard to our prospects in this section of Ohio, when I returned from the West the first week in June, every thing was parched and dry. My corn had not more than two-thirds of it come up; wheat began to look yellow, and meadows hardly a bite for a cow; oats, nothing at all;—farmers had the horrors, the big sort; but about the 10th some gentle showers fell, and since that time we have had a continuation of showers, so that nature appears entirely changed. Wheat promises well—better than for a number of years past. Corn has finally come up, and looks promising. Oats and grass will probably be a light crop, although much better than we anticipated.

As to fruit, peach trees are fully loaded; apples I think will not be very abundant in this section, for some cause many of them have blasted and dropped off. Plums, cherries, &c., appear well.

Yours respectfully,

C. Stowe.

Ashtabula county, June 25th, 1850.

From Indiana.

A letter from Bloomington, Ia., says, "Harvest is upon us; I commenced cutting my Mediterranean wheat yesterday, and the crop is very good—straw bright color and grain first rate. Late varieties show signs of rust, but not very bad. Corn is backward, and some fields are nearly a failure, but where it was worked during the dry weather it is now doing well, and we may have a fair crop. Hay crop is very short, some meadows not worth cutting."

A letter from Tippecanoe county, says: Crops have suffered much from drought, but we have lately had fine rains and the crops and hopes of our farmers are reviving. Wheat bids fair to be an average crop; Oats the same; Corn our great staple, is very backward, much of it having been replanted in June. There is a greater amount of corn planted than any former year, and if the balance of the season proves favorable we may have a fair crop.

Roads and Road Laws—Taxation.

I am highly pleased with Mr. Taber's remarks on roads, and road laws, in the eleventh number of the Ohio Cultivator, current volume. I endorse the entire article, and so will most of the people within the circle of my acquaintance.

Though the man of property may think himself highly favored by the present road laws, yet he will admit without any hesitation, that they are, in some degree, unjust, unequal and insufficient. Ohio is not now in its mere infancy; it has attained a vigorous growth. In early times, when there was so much real equality among the people, the present laws, perhaps, were well enough, but now, the wealthy are continually doing business on the public highway—their carriages run to and fro; and the poor man who keeps neither horse nor carriage, has less use of the road, than the hardy pioneer of early times.

I have heard many a curious controversy about the *grass* that grows in the road. Men that own farms, contends that a poor man that owns no land, or only enough to set a house on, has no right to keep any animal in the road, because the road *belongs* to men of substance. I have noticed, too, that the more land a man owns, the more cattle, sheep, and hogs he crowds into the public highway; and the poor man must keep such things out, or they will get *pounded* out. Very well; if property gives such exclusive right to use and *pasture* the public road, let a tax on *property* work the road and keep it in repair. And let us abolish the poll tax. I am opposed to taxing a *free man's head!* We may tax property and money, and in this way make them repair *roads*, and keep the wheels of government moving; but let us leave the taxing of *men's heads* to kings, emperors, and Czars. These are my sentiments. Farmers of Ohio, what say you? Q. D.

Hiram, Portage Co., O., June 12, 1850.

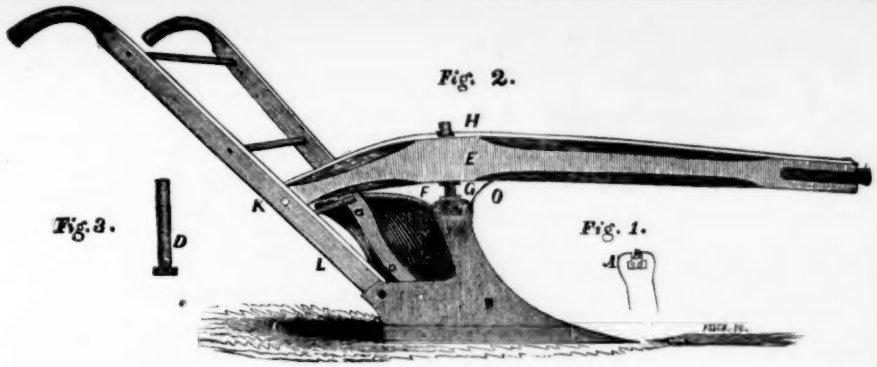
Coon Hunting.

It is the practice in this, and other places, to have an occasional *coon hunt*. Of a moonshiny night, dogs, boys and men, duly armed with guns, "*go a cooning*," and wo betide the unlucky *varmints* out in quest of food. These nocturnal peregrinations often perform a real service in despatching *coons, oppossums and pole cats*.

But the injury they inflict upon the land owners is often serious. Having "*treed a coon*," which is known by the sagacity of the dogs, they proceed forthwith, unless of the largest size, *to cut it down*. Oftentimes the game *was not there*, but the tree however valuable or beautiful, is sacrificed to mere sport, a serious loss to the farmer. To say nothing of the questionable morality of such excursions, there is no use in wasting property. Let a trusty man and dog wait at the roots of the tree, the return of daylight, then send the leaden death after the game. In our older settlements, with plank roads in prospect, we must carefully protect our timber lands. L. T.

Jefferson county, O., 1850.

The borrower is slave to the lender, and the security to both.



Howell and Sipe's Improvement in Plows.

THE PATENT CROWN HEAD AND BOLT, the invention of Messrs. Howel and Sipe, of Xenia, in this State, is represented above, and is worthy the attention of farmers and plow makers. It is designed for regulating in the most perfect manner the depth and width of the furrow to be cut, and especially for adapting the plow to the draft of two or three horses, as may be desired.

We witnessed the operation of this improvement, in company with a number of our best citizens and farmers, by invitation of Mr. Howell, a few days since. The plow was first used with two horses, and the depth and width of furrow several times changed; it was then set for the purpose and three horses attached, and all who witnessed its operation testified that it worked as well with each team, as though made on purpose for such team; while the trouble of changing the set of the plow was not more than one minute's work.

Some invention of this kind has long been wanted by farmers who occasionally desire to plow with three horses; and we doubt not that most farmers would often plow with a three horse team, if it were not for the necessity heretofore experienced, of having to procure plows made expressly for that purpose.

DESCRIPTION.

The mould board and shear may be constructed in any of the known forms, and apply thereto our form of sheath or upright. The upright may be either cast or wrought, terminating at the upper end in a crown head, which crown head A, fig. 1, may be 4 inches long placed at right angles to the beam E, fig. 2, the mortice, B fig. 1, through the whole length of the crown head is one inch wide and 1¼ inches deep, having on each side of it and at the lower part a groove C C, fig. 1, half an inch wide and quarter of an inch deep, making the mortice B, half an inch wider at the grooves C C, than above them. Through this mortice B, is a bolt D, fig. 3, passing perpendicularly through the beam E, the head of which bolt fits in the grooves CC, and is two inches in length, and may be moved through the mortice from side to side.

The bolt D, is round, except so much as works in the mortice B, which is square — the round part has a thread cut on it making it a screw, and this part passes through the beam E, on which screw are three burrs or nuts, two placed under the beam and one above; the lower burr, F, fig. 2, works on the crown head, A; by screwing it tight on the crown head, the bolt, D, is made fast at any point in the mortice, B, which is desired. When the bolt is wanted to be moved sideways, so as to give more or less land to the plow, this lower burr, F, is to be loosed, and then the bolt may be easily placed where wanted. The other burrs, G, and H., are placed, the one, G, below, the other, H, above the beam, E, and are intended to elevate or depress the beam so as to make the plow run deeper or shallower.

The advantages of this invention are, as is proven by actual and thorough experiment, to make the plow run exactly right after two or three horses working abreast, cutting any width of furrow desired, and running any depth the plowman wishes, all to be effected by moving the beam at the crownhead.

TESTIMONIALS.

The following certificates are from well known farmers and others, who have used or witnessed the use of this improvement:

We, the undersigned, citizens of Ohio, have seen a plow at work, which had Howell's and Sipe's Patent crown-head and bolt attached to it, drawn first by two horses, and then by three working abreast, and we are satisfied that it runs as correctly as if it had been expressly made to run after the one or the other number of horses, that it does everything claimed for it with accuracy and on correct principles, and that it is the only plow that we have ever seen that can be changed on correct principles. We also think the plow worth several dollars more with than without the crown-head and bolt:

JOSHUA NICHODEMUS,
J. R. CLAWSON,
F. FREESE,
W. D. ADAMS,
JNO. WINGERT, and
GEO. SWEENEY,
of Preble county.

WM. MOBBERLY,
JOS. A. HILL,
CHAS. BROWN, and
JOS. HILL,
of Highland county.
D. LAUGHEAD,
WM. BULL,
J. C. GALLOWAY,
J. K. LOUGHEAD, and
H. W. INSKEEP,
of Greene county.

We, the undersigned, citizens of Clark county, Ohio have done our spring's plowing with a plow that had Howell's and Sipe's Patent crown-head and bolt on it, and find it the best means of regulating the plow we have ever seen. The plow can be set to any width or depth of furrow desired, and made to run correctly after either two or three horses working abreast.

M. MILLINGER,
F. SIPE,
D. SHELLABARGER,
M. POLHEMAS.
H. SIPE,
M. SHELLABARGER,
J. KERSHNER,

State Teachers' Association.

The semi-annual meeting of the Ohio State Teachers' Association will be attended in Springfield on the 3d and 4th days of July next. Several interesting addresses and reports will be presented and some of the most important topics connected with schools and education in our State will be discussed. The people of Springfield have generously offered to entertain all who attend, free of expense. A large attendance and an interesting session is confidently expected.

A. D. LORD,
Chairman of the Exec. Committee.

Columbus, June 18th, 1850.

HORTICULTURAL DEPARTMENT.

Salt for Fruit Trees --- Fatal Experiment.

Friend Bateham: For the information of your readers, I will relate a disastrous incident that has happened to me. Having learned from agricultural papers and otherwise, that common salt is a good manure, especially for fruit trees, and also a preventive of injury by insects, and being determined to have a good orchard of the best fruit that I could get, I had procured two hundred fruit trees, mainly apples, but some pear and peach, and in planting my trees, I threw into the hole, and touching all round the roots of each tree, about half or three quarters of a pound of salt; the result was, that the salt killed every tree around which it was put.

The sap carried the salt up to the very top buds of the tree, so as to be tasted in them. Some persons have thought that it might not have been the salt that killed the trees, but there can be no mistake that it was the salt that killed them, as I had planted six trees before the salt was brought into the field, and one other tree was missed and no salt was put about it, and these seven trees not salted are alive and growing finely.

I do not wish to discourage people from using salt as a manure, but to caution them against using it as freely and in the manner that I did. I think that if salt be mixed with rich mould soil, or manure, and not allowed to touch the roots of the trees, and especially not in large quantities, in its crude state, it may be used with safety and advantage.

On the 22d and 23d insts. the fruit in this vicinity was greatly damaged by frost, but not all killed.—Wheat looks well. Our meadows are very backward. Corn is coming up badly, on account of the dry weather and frosts. Early planted corn and potatoes are much injured by the frost, so are beans, cucumbers and garden plants generally.

Yours very respectfully,

John Foster.

Cumberland, Guernsey Co., O., May 28.

Remarks. — We truly sympathize with friend Foster in view of his misfortune, and thank him for the caution which his experiment affords to others. If he had observed what was said on this subject in our paper last year, (p. 218) we think he would have not made the mistake he did; and in fact we have never, to our knowledge, seen the practice recommended of applying salt to newly planted trees — especially should it not be applied in the soil directly in contact with the roots, as in its crude state it is poisonous to vegetation; while in a diluted state (dissolved by rains and incorporated with the soil) it is found beneficial, *applied in moderate quantities to trees of bearing size.* — Ed.

Answer to Inquiry about Bees.

As no one has yet answered A. C's. inquiry in Cultivator of June 1st, about bees, I take the liberty to offer the following: First, he asks what caused the honey to sour? If the hive was placed in a damp situation, or excluded from the sun and air, or if the hive was not sufficiently ventilated, the breath of the bees arising and congealing amongst their comb, would be a sufficient cause. To prevent this, hives should always have an air hole at the top, protected by a piece of wire gauze or perforated tin. Another probable cause is, the bees being so reduced in numbers, could not keep up the usual temperature [74 deg. Fahrenheit] of the hive, and the honey froze and thawed alternately till it soured.

I think the reason the bees refused to work was, that the queen died early in the spring; this happens sometimes; or the ants might have infested the hive — for these insects when they invade a hive, create a consternation equal to the worms.

Yours truly, J.

Highland Co. June 20, 1850.

The Curculio.

The following communications by Messrs. Longworth and Ernst, recently appeared in the Cincinnati Gazette, and contain about all that is known or conjectured at the present time in regard to the habits and instincts of this very troublesome insect:

Horticultural Editor of the Cincinnati Gazette: I am much gratified to learn that you vouch for the truth of a new discovery to prevent the destruction of the plum by the curculio. It seems the tree is to be shaken once per day for six weeks. You do not tell us at what *hour* of the day, or at what *minute* of the hour, this shaking is to take place. Please advise us. Is the curculio bound by the laws of nature, to sting the plum at a particular moment in the day, or do you notify him of the hour when you will receive him? It is important for us to know. Of its truth, it appears there is conclusive evidence, as an Eastern gentleman tried it two years; and the first year had an abundant, and the second year, a partial crop. If this be satisfactory evidence, why abandon the old remedy, for which we had stronger evidence from the East, and with less than 1-100 of the labor? I recollect that our friend Ernst, a few years since returned from the East, fully believing, that to scatter salt under the tree, (as there advised) was a sure preventive. He went so largely into the experiment, that from that, or our Porkopolis locality, the price of salt advanced. His plums failed as usual, but the salt effectually destroyed all the grass, and other vegetation under the trees. From the great productiveness of the Boston Pine, as vouched for at the East, he about the same time went into the cultivation of that strawberry. But after years of trial, failed to produce 1-6 of a crop of perfect fruit, and so informed us through the papers. I fear these two failures may deter him from trying your shaking process; and that the shaking process will gain little credence here, unless it be among our Shaking Quakers. It is dangerous to judge from the experience of a day or two. In the past month we had one day of clear weather, and a succeeding one, when the rain did not pour down in torrents. It would have been dangerous from this to calculate on another clear day, as clouds and rains followed and have not yet left us. There is a circumstance within my own knowledge, that would have made me doubt the six weeks shaking process, had not you vouched for it. When I have a new plum tree in the open ground, to ascertain the quality of the fruit, I tie round a small branch, soon after the blossoms drop, a piece of gauze, and never failed to have fruit but one season. That season. I cut off the gauze, after the plums had obtained their full size, full six weeks after the six weeks shaking season was over, and a few days thereafter, found every plum punctured by the curculio. I will state a fact, and have others to judge of the cause, as I cannot myself be certain to what to attribute it.

Around my house I have 27 plum trees. I have a brick pavement extending from the house beyond the trees several feet. In 25 years, I have never failed to have a crop from these trees. I have as many trees in the open ground, and have had them bear but two

years only, though my gardener faithfully tried salt, hanging a scythe in the trees, and other certain remedies. There may be two causes for the exemption of my trees in the pavement. The one, the instinct of the insect, which leads it not to deposite its eggs over a pavement, where its young must perish, not being able when the plum falls from the tree, of finding winter quarters in the ground. The other, the natural timidity of the insect, which leads it to avoid places where persons are constantly passing. In small plum orchards, where hogs are kept, they are said to be free from the curculio. Some have supposed this freedom from the insect, is owing to the destruction of the young curculio by the hogs. I infer not, as the insect has wings, and the hog pen would be supplied with curculio visiters from the neighborhood. This exemption may be owing to the constant running of the hogs among the trees, and frightening the curculio.

But I would advise experimenters not to be deterred from trying the shaking process, because it is contrary to common sense. Time was, when common sense was to be valued. But since the discovery of the Telegraph, fire from water, and Mesmerism, all of which set common sense at defiance, I place no reliance in it. I notice in the last number of the Cultivator, a discovery that will surprise our market gardeners, who bring from 50 to 120 bushels of strawberries to our market in a day. It is, that the large early Scarlet, is more productive than Hovey's Seedling and some other plants, that if genuine, are Pistillate. The Hovey's Seedling, in its proper soil [a stiff rich soil] will produce three times the quantity that can be raised from the early Scarlet, and much of the fruit of double the size. The early Scarlet is Hermaphrodite. Perfect in the male, and partially perfect in the female organs, and is one of the most productive of Hermaphrodites. We use it only as an impregnator. Our best Pistillates will bear three times the quantity of fruit, and much larger fruit than the Scarlet, when properly impregnated.

Respectfully,

N. Longworth.

Reply of Mr. Ernst.

Messrs. Editors: In a recent communication on *Curculio*, in your paper, by my venerable friend, N. Longworth, Esq., he is pleased to indulge in some levity at my expense. To that indulgence, so far as it affords him pleasure, I make no objection, but I must beg to make some explanations, especially at this time, when this annoying little insect is about to commence its depredations.

It is true, from personal observations and information received from intelligent Horticulturists, when abroad some years since, I was induced to recommend the application of salt as a remedy against its attacks, and also to apply it to my own trees, but without realizing the desired effect. I have never felt that I gave it a fair trial. I applied salt brine to the surface of the ground under the trees at the time they were in bloom, and neglected to repeat it afterwards; I presume, therefore, that the rains soon washed the salt away, and left the insect free to act as before.

Now let us look a little at our friend's *pavement theory*, the salt water and other theories, with the instinctive character of the curculio, and compare the rationality or efficacy of their application, I take it that insects never destroy merely for the indulgence of an evil desire, but the mischief they do, results from one or two causes, viz: In seeking subsistence or in providing for the propagation of their species, and that they always possess sufficient instinct to accomplish the end in view. That the curculio is extremely sagacious, and that it has the power both to crawl and fly, no one who has observed its habits and movements will deny. There is nothing in the way of its locomotive power to prevent it from going when and where it will at pleasure, nor is there a want of *instinctive* power to *direct* it to the *proper place* and object to effect its end. It is not left to blind chance for a continuation of its species. In resorting to the plum its sole object is to carry out part of the process of propagation, for the female to deposit her egg in a safe place, where her progeny will find subsistence when her egg is, by the warmth of the sun, hatched into life — into a grub or worm which is supplied with food from the juices of the plum. This soon becomes diseased from the loss of its juices, when it drops from the tree with the grub or worm which speedily disengages itself and makes its way into the ground, wher it remains until it comes forth in the form of a beetle, to pass through that form of its existence and to renew its work of increase and propagation.

It would be absurd to suppose that the instinct which has so unerringly directed it to the plum as a safe place to deposit its egg, and to secure its offspring with food, *stops here*, leaving the balance of its transmutation to *chance*. This cannot be. He that prescribed the orbit of its existence, works not so unwisely. It would be like supposing the Creator to have provided for the growth of a tree and the productions of seeds, but made no certain provisions for its vegetation and reproduction.

Instinct as certainly dictatates the whole process of propagation and security of the offspring as the proper place to deposit the egg. If there is a substance under the tree destructive to the life of the grub, it is as natural for the insect to avoid that tree as it is to deposite its egg in a secure place. It matters not if that substance be a *pavement*, through which the grub cannot pass into the ground; or if it be salt, water, or any other substance in which the grub, on falling from the tree, cannot live, or pass into the ground, the insect will avoid all such trees and leave you the plums for your enjoyment.

Various opinions prevail among scientific gentlemen, as to the time of its transformation, its duration and extent of mischief. Prof. Harris says: "I have found the beetle as early as the 30th of March, and as late as the 10th of June, and have frequently caught them flying in the middle of the day. They begin to sting the plum as soon as the fruit is formed, and as some say, continue their operations until the first of August." He further says, "immediately after the fruit falls, [the grub] burrows into the ground. This may occur at various times between the middle of June and of August; and in the space of a little more than three weeks afterwards, the insect completes its transformation, and comes out of the ground in the beetle form."

From this it will be seen that the process of generation goes on during the entire maturing of the fruit, and for any remedy to be effectual, it must be continually and faithfully applied during the same period. Here we have also the whole mystery unraveled, why some persons have been successful and others have failed in the application of the same remedies. The shaking process will prove effectual if well followed up, so as to prevent the insect having time for depositing her egg. But all such notions as hanging *old horse shoes*, and *old iron hoops* on the trees, *bruising and mangling their bark and bodies*, is sheer nonsense; so also is the idea that the curculio does not fly or come from a distance. I have had all my first crop of plums destroyed by them, though there was not a plum, apricot, or nectarine tree within half a mile or more of my garden.

Much has also been said in favor of hogs in plum orchards. The only possible advantage to be derived from them is, by rubbing against the trees to disturb the insect in depositing her egg, and to eat up the fruit as it drops from the tree, and destroy part of the grubs. But these doctors often prove more fatal than the disease they are employed to cure. I have had an entire orchard of choice trees destroyed by the application of their teeth to the bark and peeling it off.

Very respectfully, yours,

A. H. Ernst.

Spring Garden, Cincinnati, 1850.

HOUSEWIFE'S DEPARTMENT.

Letter from Aunt Patience, about Bathing and Breathing pure Air.

My Dear Nieces: As the season is fast approaching when there is great liability to disease, I thought it might not be amiss to say a few words upon the means of preserving health.

One of the first things requisite for the enjoyment of health is, that the skin be kept in such a state that it can readily transmit, through its pores, such matter as would produce positive injury if retained in the system. This can only be effected by frequent and thorough ablutions of the whole surface. I am aware that among many, bathing has been thought injurious, and has doubtless been rendered so by performing it at improper times.

If you would enjoy all the benefit of a bath, spring up in the morning, and if you have not a shower bath, have a tub of water and wash briskly, rubbing the skin with the hand if there is the least tendency to chilliness. Then wipe thoroughly with a coarse towel, or else use some kind of friction after drying the skin with a fine one. Either a flesh brush or a piece of flannel will answer the purpose. Attend to these directions, and our word for it you will feel the benefit as clearly as you will see that the skin is cleaned.

I have known of young ladies who made it a practice to take a bath after they had been at work some hours, and the perspiration was passing freely from the skin. It would, of course, be suddenly interrupted, and lead to colds and perhaps rheumatism, especially if there was but little friction used, and the exercise became less vigorous after the bath than before. The better course in such a case would be, to use only friction till the effects of exhaustion have disappeared, and the system has regained its usual tone.

Another requisite for health is pure air. Many persons are not aware that the quantity and quality of the air we breathe are of such vital importance, and shut themselves up in ill ventilated sleeping rooms, that do not contain a sufficient number of cubic feet of air to allow healthy respiration for half the night. Seven cubic feet of air per minute is said to be the least that a healthy man can reasonably be allowed. How soon would the air become impure in small, ill ventilated sleeping rooms.

Look to it girls, that you not only have plenty of pure air to breathe, but plenty of room in the lungs for its reception. Do not pinch and contract the waist till the lungs cease to perform their office faithfully, thus leaving the blood impure, and paving the way for all sorts of disease.—And especially if any of your friends are sick, do not let the room be shut till the air is loaded with offensive vapors which render recovery less probable while it often endangers those that nurse them.

You may, perhaps, wonder that I should take it upon myself to give you this advice. But the truth is, it is so long since I have heard a word from you, that I begin to fear that Lizzie and Maggie and Hellen, besides a great many more, must have become too feeble to wield a pen. How is it girls? We are all desirous to hear from you. As ever, your loving

Aunt Patience.

Educated Women as Wives and Mothers.

With many young men who are seeking a partner for life, a foolish prejudice seems to exist in regard to women of superior literary attainments, which the writer of this article aims to remove. In order to effect this object, and also to give birth to the reverse sentiment we deem it only necessary to unravel and expose the principal feeling which originates and fosters this silly prejudice.

There is no ambition more truly indigenous to the breast of man than that of securing to himself a companion, who, by her literary acquirements, amiable disposition, and polite accomplishments will command the respect and admiration of the world.

The above proposition having been long fixed within our mind as an acknowledged fact, we have been much surprised to meet, of late years, so many whose avowed sentiments, apparently prove its fallacy. Most true it is, however, that in nearly every instance of this kind, they were men of inferior intelligence and limited information. But we have also encountered some, whose natural gifts, coupled with a superior fund of acquired knowledge, had set them far above their fellow men, possessed in an eminent degree of this same morbid sentiment.

Now, upon what foundation is this peculiar prejudice based? Simply this: The uneducated man tells you that he can never think of wedding a female, whose mental superiority will only serve to make the scantiness of his own information more apparent, and who might, in all probability, invest herself with an authority over his affairs not compatible with her position, thereby entailing perpetual unhappiness upon himself and family. Next the erudite man, who is deeply versed in the lore of books, nursing a selfish pride, is not ambitious of coupling with himself, a light that may partly diminish or totally eclipse his own. To the former we address ourselves, hoping that our remarks may produce the desired result upon all whose eyes they may chance to meet.

In the first place, we do not contend that to marry a woman much superior to one's self in intellect, is a direct way to happiness—but we do insist, that to a man of medium intelligence, there is a greater chance of happiness in the partnership of a superior than of an inferior woman. In the former case, we are forced to believe his own understanding is more likely to be highly estimated than the other. Besides, he is allowed the credit of having had sense enough to choose a good wife; and secondly, he has counsel and example always at hand for the improvement of his own appearance before the world. The very superiority of one's wife is a sufficient guarantee that she will not endeavor to show off in society to the disadvantage of her husband; on the contrary, she will exert herself to conceal his weakness and ignorance, appealing to him on many occasions for information, and conveying her superior views of any subject in the humblest form of friendly suggestion.

In the second place, will any man insist that a woman of inferior understanding is capable of rearing her children in as refined and judicious a manner as one of superior intellect? Now it is evident to every one that the interest and welfare of a family depends mainly upon the mother; and the interests of the father being so clearly identified with those of his children, how absolutely important does it become for a man, to be particular in his selection of a wife. In tracing the lineage of great and distinguished men, we find scarcely an instance in which they were not the offspring of women of a superior order, either in respect to natural or acquired gifts. And some philosophers, it appears, have even suggested that talent is inherited entirely from the mother, and temper alone from the father; an idea, which in many respects is very plausible.

An intelligent, modern author, in support of the above theory, somewhere observes, that talent, if of natural descent, would remain continually fixed in certain families, so as to give them a greater ascendency over their fellow men, than what is consistent with the general comfort of mankind. But, by descending through females it is carried from one family into another, remaining no long period in any: so that all have a chance in the course of a few generations. In short, talent by this means, acquires a dispersive or diffusive property which it could not have if limited to males. Now from the above observations it is obvious that the greater a woman's talents are, so much more certain are the happiness and welfare of her husband.

Aside from the above, another soothing consideration which we will bring to bear upon our argument, is the fact, that it requires a much greater amount of actual knowledge in a woman to match with the same *apparent* degree of it in a man. Thus, it will be observed that frequently the most common place observation will command attention when uttered by a man, whereas we frequently hear remarks pregnant with thought and wisdom pass unheeded and unappreciated from the lips of a woman. We have not room to investigate the cause of this disparity, though we would cheerfully do so. Under this consideration it becomes evident that a man of limited information need have no apprehension of appearing to disadvatage beside his more learned wife.

We conclude by observing that the intellects of woman are not naturally so far inferior to those of men, as they are rendered by neglect, or misdirected education. As a general thing, the energies of the mind when directed entirely to the improvement of the personal graces, become enfeebled, and incapacitated for the digestion of more substantial nutriment. Hours, days, weeks, aye years are spent by many females in the trivial employment of the toilet; therefore do I feel justified in imploring them to devote a few of those waste moments to mental culture, assured that in after years they will look back upon those same moments, as a few bright pearls, snatched by the wayside from the rubble of a lifetime. Therefore, young ladies, aim at the cultivation of your intellects; lose no moment that may be devoted to mental exercise, and rest assured that there are always plenty to appreciate and value your acquirements, whilst none, we are sure, who are worthy of esteem, will shun you for your erudition. E. F. P.

Mt. Carmel, Clermont O., May 29, 1850.

THE HORTICULTURIST,

AND

Journal of Rural Art and Rural Taste.

EDITED BY A. J. DOWNING,

Author of "Landscape Gardening," "Designs for Cottage Residences," "Fruits and Fruit Trees of America," &c.

TO all persons alive to the improvement of their gardens, orchards, or country seats, — to scientific and practical cultivators of the soil, — to nurserymen and commercial gardeners, this journal, giving the latest discoveries and improvements, experiments and acquisitions in Horticulture, and those branches of knowledge connected with it, will be found invaluable. Its extended and valuable correspondence presents the experience of the most intelligent cultivators in America; and the instructive and agreeable articles from the pen of the Editor, make it equally sought after by even the general reader, interested in country life; The Foreign Notices present a summary from all the leading Horticultural journals of Europe; the Domestic Notices, and Answers to Correspondents, furnish copious hints to the novice in practical culture; and the numerous and beautiful Illustrations —Plans for Cottages, Greenhouses, the Figures of New Fruits, Shrubs and Plants, combine to render this one of the cheapest and most valuable works on either side of the Atlantic.

The Fifth Volume of the Horticulturist will be commenced on the 1st of July, 1850. All or either of the back volumes can be supplied. New subscribers will be furnished with the first four volumes for $10.

TERMS—Three Dollars per year—Two copies for Five Dollars. All payments to be made in advance, and orders to be post paid.

LUTHER TUCKER, *Publisher*,
Cultivator Office, Albany, N. Y.

Albany, June, 1850.

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Cincinnati, June 1st, 1850.–4t.

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March 15.

THE MARKETS.

OHIO CULTIVATOR OFFICE, July 1st, 1850.

We find nothing of interest to state in relation to produce markets, dullness and low prices every where prevail, excepting the single article Wool, which has been bought up with uncommon promptness in all parts of the country, and at prices very satisfactory to the farmers.

The proximity of harvest, and the prospect of a bountiful wheat crop, has of course depressed prices of flour and grain, especially as the flour from new wheat will doubtless be found greatly superior to the old.

News from England represents the season and prospects of crops as quite favorable.

CINCINNATI, June 29.—Flour $4,50@4,75. Wheat none; Corn 48@50 cts; Oats 42@43 cts; Rye 75@79; Barley 90@$1. Flax Seed $1,25. Mess Pork $10,25@10,50 per bbl. Butter for packing 8@10 cts; at retail, 12½ to 16 cts. Eggs 8@9 cts. Beef cattle $5@5,50 per 100 lbs. net. Hogs $2,50 gross.

CLEVELAND, June 27.— Flour $5@525; Wheat $1@1,05. Corn 45; Pork Mess $10,50@11; Beef do $7,50 per bbl. Butter 10@12½ at retail; Egg 9@10 cts.

NEW YORK, June 29th.—Flour [$6@6,25. Wheat $1,25@1,37; Corn 62@63 cts per bu. Oats 45@48. No change in provisions.

☞ CONTENTS will hereafter be found on first page.

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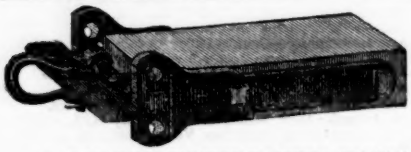
South Charleston, Clark county, O., July 1st, 1850.



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John Johnston,	Russell Brown,
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Middleport, June 9, 1847.

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Columbus, June 1, 1850.

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BY C. W. JOHNSON; Adapted to the United States by G. EMERSON, Philadelphia, 1850 In one large octavo volume, 1173 pages, with numerous plates and cuts of plants, live stock, farming implements, &c.; strongly bound with gilt emblematic designs on the cover, making a beautiful and most useful ornament to the book case and parlor table.

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THE above cut is a representation of the celebrated "Pitts' Separator," as manufactured by the subscriber at his "Agricultural Machine Shop," Springfield, Clark county, Ohio. It is the same machine *that has stood, and now stands unrivalled*, by any machine for threshing and cleaning grain in existence. It has always received the first premium when exhibited at State and county agricultural fairs. It will thresh and clean from 300 to 500 bushels of wheat, or 600 to 1000 bushels of oats per day; frequently threshing over 100 bushels of wheat per hour.

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